

Title (en)

Spring loaded guide ring.

Title (de)

Federgespannter Führungsring.

Title (fr)

Anneau de guidage chargé par un ressort.

Publication

**EP 0351549 B1 19940413 (EN)**

Application

**EP 89110793 A 19890614**

Priority

US 20845588 A 19880620

Abstract (en)

[origin: EP0351549A1] Guide ring apparatus (10) includes a shaft (16) configured for insertion into a bore (14) and an annular bearing (30) disposed on the shaft for (16) engaging the interior surface of the bore (14) along with an annular spring (32) having a preselected force-deflection characteristics in operative relationship with the bearing (30) for causing the annular bearing (30) as well as the shaft (16) to float within the bore (14). This particular bearing (30) and spring (32) arrangement accommodates for variations in the bore (14) and shaft (16) due to manufacturing tolerances, wear and other eccentricities of the shaft (16) and bore (14).

IPC 1-7

**F16J 9/06**; F16J 9/00

IPC 8 full level

**F16J 9/00** (2006.01); **F16J 9/06** (2006.01); **F16J 9/28** (2006.01)

CPC (source: EP US)

**F16J 9/062** (2013.01 - EP US); **F16J 9/28** (2013.01 - EP US)

Cited by

EP0937922A3; US6257590B1

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

**EP 0351549 A1 19900124**; **EP 0351549 B1 19940413**; AT E104408 T1 19940415; DE 68914531 D1 19940519; DE 68914531 T2 19941110; US 4906109 A 19900306

DOCDB simple family (application)

**EP 89110793 A 19890614**; AT 89110793 T 19890614; DE 68914531 T 19890614; US 20845588 A 19880620